

6.0 Facility

6.1 General

The design of a new Wild Horse and Burro Facility begins with the examination of other facilities similar in nature and purpose. The following text is an excerpt from research done for this project:

Introduction: In 1971, in response to public outcry about the diminishing numbers of wild horses and burros roaming the American open range, Congress enacted the Wild Free-Roaming Horses and Burros Act of 1971. This act made the protection and management of wild horses and burros the responsibility of the federal government, primarily, the Bureau of Land Management. As sizes of herds began to increase, conflicts between ranchers, environmentalists and animal activists began to arise. Ranchers were killing horses that were over grazing their cattle land; horses were tearing up stream banks and impacting eco systems. The BLM set up management plans in order to revive and promote healthy and sustainable rangeland by keeping herd sizes manageable. This reduces conflict between ranchers and wild herds competing for and overgrazing the land. In order to keep herd sizes smaller and healthier, every year many horses have to be removed from the free range. In order to keep these removals humane the BLM strives to adopt excess animals to private citizens or move them to long term holding.⁶ There are many long-term holding facilities across the country. As more and more horses need to be relocated, the promotion of these facilities becomes more important. Public awareness and tourism can do a great deal to raise support for effective management methods.

Nevada Wild Horse Plan

(Plan of Goals, Strategies, and Recommendations for the Preservation & Protection of the wild Horses for the State of Nevada, January 1999)

Statewide plan to establish and maintain “Appropriate Management Levels” of wild horses on federal range land by promoting adoption, increasing tourist interest, providing education opportunities and work with the BLM in order to maintain healthy rangeland. The plan hopes to enhance wild horse habitat while reducing conflict between land user groups – specifically the state government, the livestock industry and horse advocacy groups. The group strives to support humane and effective methods for removal and relocation of excess wild horses, ensure adequate funding, and to develop, identify, initiate, manage, and coordinate projects to study, preserve and manage wild horses and their habitat.

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⁶ Per BLM – 7/9/2004

Also, the group strives to ensure that research and technical developments are directed and implemented into management actions affecting wild horses and their herd areas.

The complete paper, Preliminary Research for Wild Horse and Burro Programs by Jenifer DaRoss of Line and Space, LLC, can be found in the Appendix B of this Program.

6.2 General goals and objectives

In order to achieve the grander goal of 'healthy horses on healthy lands,' this facility will be a centralization of all efforts to manage the wild horse and burro populations. The facility itself will be a working adoption facility to promote and enhance the Wild Horse and Burro Program's ability to gentle and adopt wild horses/burros to the public.⁶ Additionally, it is hoped that techniques for alternate methods of managing the wild horse and burro populations will be developed/implemented here. Efforts at public awareness/education will be housed at the Visitor Center but coordinated through this facility.

Goals and objectives of this facility as stated during the workshop and additional interviews/meetings are:

help with the processing associated with adoption ... Bring awareness of adoption to the public (how they can become adopters) ... Promote adoptions ... User friendly facility for customers interested in adopting ... house the mascots that are used to educate the public ... provide/inform the public with the truth about the WH&B program ... healthy animals/populations ... ensure the carrying capacity of the land can hold animals ... facilitate adoption process (brand inspection, etc.) ... low-stress design to aid in the handling of wild horses/burros ... work with the animals

In response to a question stating, 'Why do we need this new facility? List three reasons...', some responses were:

educate the visitor/public about the wild horse and burro species, their interaction in the environment and their history ... educate about the law ... create a facility where the public can more easily adopt wild horses and burros ... the overall efficiency of the program can be greatly improved ... assure continuation of a national treasure ... to spread the word and gain support ... to educate children about the environment/wild horse/burro issues ... information center for wild animal adoptions ... it's part of what the BLM does, and important part of our mission and history and it's part of the mixed work that needs to be done, e.g. managing the resources and as Kathy said a living historic treasure

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6.3 Sustainability goals

The goals listed below were developed as a result of workshop input:

meet the needs of the present without compromising the needs of future generations ... presence of and respect for natural resources ... understanding of temporal forces of nature ... envisioning long-term effects ... possibility of a LEED certification, but do not let the LEED rating system guide the design ... use of on-site renewable energy (sun, wind) ... integrated renewable energy approaches (PV's for water pumping, windmills for electrical, etc.) ... sustainable material (recycled content, sustainable use, embodied energy, low-maintenance) ... respect the environment ... preserve natural hydrology and drainage patterns ... minimize disturbance of previously undisturbed land ... use materials with more sustainable attributes ... minimize the impact (visual, noise, circulation, frequency of traffic) of parking areas and roads on neighbors ...

Members of the U.S. Green Building Council developed the LEED (Leadership in Energy and Environmental Design) Green Building Rating System, a voluntary, consensus-based national standard for developing high-performance, sustainable buildings. This rating system defines "green" building" by establishing a common standard of measurement. This rating system promotes integrated, whole-building design practices. It recognizes environmental leadership in the building industry and raises consumer awareness of green building benefits. LEED provides a complete framework for assessing building performance and meeting sustainability goals. It emphasizes state of the art strategies for sustainable site development, water savings energy efficiency, material selection, and indoor environmental quality.

Source: U.S. Green Building Council®

Note: The ability to achieve some of the sustainability goals is dependent on securing SNPLMA Round 5 funding.

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6.4 Parking

Parking is primarily for administration, staff, volunteers and adopters.

Surfacing materials for parking and drives should be “hardened” but alternative materials with more sustainable attributes will be researched.⁶

Goals applying to the design of parking areas, drives and roads, and other outdoor spaces include; preserve natural hydrology and drainage patterns, minimize disturbance of previously undisturbed land, use materials with more sustainable attributes, minimize the impact (visual, noise, circulation, frequency of traffic) of parking areas and roads on neighbors.⁶

As a preferred alternative to constructing a large parking area to accommodate all adopters/public during large-scale adoptions/horse-shows, it has been decided that the BLM will attempt to enter into a legal agreement with Bonnie Springs to utilize their parking areas during these times (this will require advance scheduling with Bonnie Springs). This will limit construction costs for a large parking lot as well as their negative environmental/visual impact. It is assumed that this approach will be successful and that large event parking will be provided at Bonnie Springs utilizing vans as a shuttle, where necessary.

Parking will be provided at the Wild Horse and Burro Facility as follows:

Adopters with trailers	4 spaces
Visitors	4 spaces
Visitors HC	1 space
Vans	7 spaces*
Administrative Staff	5 spaces**
Administrative Staff HC	1 spaces
Volunteers	4 spaces
Volunteers HC	1 space
Maintenance	2 spaces
Service Vehicles	2 spaces

* These spaces will be used to park the vans as shuttles during large events only, otherwise they will be used as Visitor/Adopter parking.

** Actual number utilized will vary with staffing (based upon business plan).

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In the event that the parking agreement would end/be terminated, the facility will be master planned for parking 100 additional vehicles (many of them trucks, some with trailers)

6.5 Operating schedule*

**The following is dependent upon the Management Plan to be developed by the BLM.*

The facility will be occupied by Administration, Staff, and Volunteers seven days a week.⁶ Adopters will have access to the adoption staff/facility by appointment or regularly appointed hours.

5th grade students from the Oliver Ranch School will be visiting the facility while the Oliver Ranch School is in session (weekdays, excluding breaks, during the CCSD school year). No schedule for ancillary programs has been determined.

The facility will be occupied by horses/burros 24 hours a day. Therefore, 24 hour supervision of the facility and the animals therein will be required. The RV site occupant is currently slated for this responsibility.

It is to be noted that accommodating different activities (large gathers, large numbers of horses arriving/departing, adoptions/horse-shows), and wear/tear on the facility (as well as staff and the land itself) may dictate downtime for maintenance and rest.

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6.6 Systems⁶

The Wild Horse and Burro Facility will include the following systems:

Fire Protection:

The Wild Horse and Burro Facility will include a fire protection system consisting of water storage, pressure system (UL fire pump), and sprinklers within all interior spaces including the maintenance shop. Due to acts of vandalism and arson at other similar facilities around the country, all covered exterior spaces that are constructed of, or store, combustible materials such as the arena, the barn, the covered stables, the hay storage, etc. will be provided with a fire protection system. Standard fire and smoke alarm/monitoring equipment will be installed throughout. It is possible that this system will be shared with the Oliver Ranch School.

Requirement and implementation of fire hydrants connected to this type of system will be discussed with the local fire district.

Depending upon the design of the system (electrical pump) a generator feed may need to be provided for cases of black-outs, etc.

Communication:

It is assumed that an intercom system will NOT be provided at the facility because of the probability that radios and cell phones will meet this need.

Security:

A central security alarm system will be provided. Webcam-type networking (integrated into other uses) is contemplated. Restricting vehicular access, in addition to, limiting public access will be necessary through the use of gates and signage.

Data:

In anticipation of current and future Information System (IS) requirements, all spaces will have access to a data network connected to a central server (housed in the Administrative Server/Telephone Room) either by data cable or wireless connection. Due to the recent advances in wireless network technology, it is assumed that the facility will depend more on this technology than running multiple data cables.

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Environmental Space Conditioning:

Conventional, high efficiency air conditioning and/or evaporative cooling is contemplated for certain spaces. Active and passive heating and cooling techniques will be utilized throughout.

An energy management system (EMS) will be incorporated, and possibly include interpretable, graphic, communication of energy usage for educating the users, visitors, and students from Oliver Ranch School.

Sewer/black water:

An ecologically friendly waste disposal system will be incorporated. It is expected that this will be done in conjunction with an artificial wetland process and/or other natural treatment systems. Also, there is a possibility of combining this with the sewer/black water system serving the Oliver Ranch School.

Recycling/composting:

A centralized recycling/composting area will be provided.

Gray water:

Treated (perhaps by solar methods) and recycled gray water will be plumbed separately from black water for use in irrigation and perhaps toilet flushing.

Hot water:

Solar-heated water will be located near individual places of use, although, we will examine the feasibility of a distributed system.

Potable water:

A water source (perhaps disinfected through the use of solar concentrators) and delivery system will be created. Depending upon results of well studies, various possibilities of water sources include an on-site well system (preferred) or piping from other sources. Alternative water sources, including using the perched aquifer which may contain water unsuitable for human consumption, will be researched to determine if they can be used for the horses or other water uses which don't require potable water.

Rainwater harvesting

Rainwater falling upon structures will be captured and utilized. Recognizing the limited but high flow/rain flow issues it is expected that this water will be primarily used for demonstrating concepts of conservation as well as celebration of rainfall and the importance of water in the desert.

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Power and lighting:

A combination of grid supplied and alternative energy methods including photo voltaic (possibly in conjunction with concentrators, tracker, thin film weather membranes, etc.), wind power (for pumping, etc.), biogas, as well as, by technologies not yet considered will be utilized.

Energy-efficiency will be maximized through the use of daylighting, LED light sources, and dimmable fluorescent bulbs/fixtures while still providing lighting appropriate to the task at hand (including security needs).

Digester/Biogas Generator:

A digester/biogas generator will be incorporated into the facility and will primarily use waste from the horses, but other potential sources of waste that may be used include waste from Oliver Ranch School, septic tank sludge, plant material, etc.. Currently the horse waste is contemplated, as of this time, as being the primary source of waste for the digester, but additional research is required because we don't have any direct examples of digesters using horse waste.

Note: Due to similarities with the Oliver Ranch School, portions of this text were copied from the Oliver Ranch School program for convenience.

Note: Work beyond conceptual design for a number of systems or portions of systems mentioned is dependant upon success of Round 5 SNPLMA funding.

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